#	PACKAGE TYPE	FIELD ISSUE?	PHOSPHATE EXTRACT ($\mu g/mm^2$)		CHLORIDE EXTRACT ($\mu g/mm^2$)	
			OXYGEN GAS	NITROGEN GAS	OXYGEN GAS	NITROGEN GAS
1	QFP#1 WITH RED PHOSPHORUS FLAME RETARDANT	YES	1.506	0.04	0.050	0.003
2	QFP#2 WITH RED PHOSPHORUS FLAME RETARDANT	YES	1.313	0.007	0.070	0.001
3	PBGA WITH RED PHOSPHORUS FLAME RETARDANT	SUSPECT	0.977	<0.002	0.051	0.001
4	SOIC WITH RED PHOSPHORUS FLAME RETARDANT	YES	0.814	0.08	0.030	<0.001
5	QFP#3 WITH RED PHOSPHORUS FLAME RETARDANT	SUSPECT	0.137	<0.002	0.011	0.000
6	QFN WITH ORGANIC P AS CATALYST AND ORGANIC FLAME RETARDANT	NO	0.002	<0.002	0.003	<0.001
7	QFP - Sb/Br FLAME RETARDANT & ORGANIC P AS CATALYST	NO	<0.002	<0.002	<0.001	0.001
8	PBGA WITH ORGANIC P AS CATALYST	NO	<0.002	<0.002	0.001	0.001
9	QFP WITH ORGANIC P AS CATALYST & ORGANIC FLAME RETARDANT	NO	<0.002	<0.002	<0.001	0.001
10	FC PBGA ORGANIC P AS CATALYST	NO	<0.002	<0.002	0.002	<0.001

QFP = QUAD FLATPACK (WIREBOND)
PBGA = PLASTIC BALL GRID ARRAY (WIREBOND)
SOIC = SMALL OUTLINE INTEGRATED CIRCUIT (WIREBOND)
QFN = QUAD FLATPACK NO LEAD (WIREBOND)
FCPBGA = FLIP CHIP PLASTIC BALL GRID ARRAY (FLIP CHIP)

FIG. 1

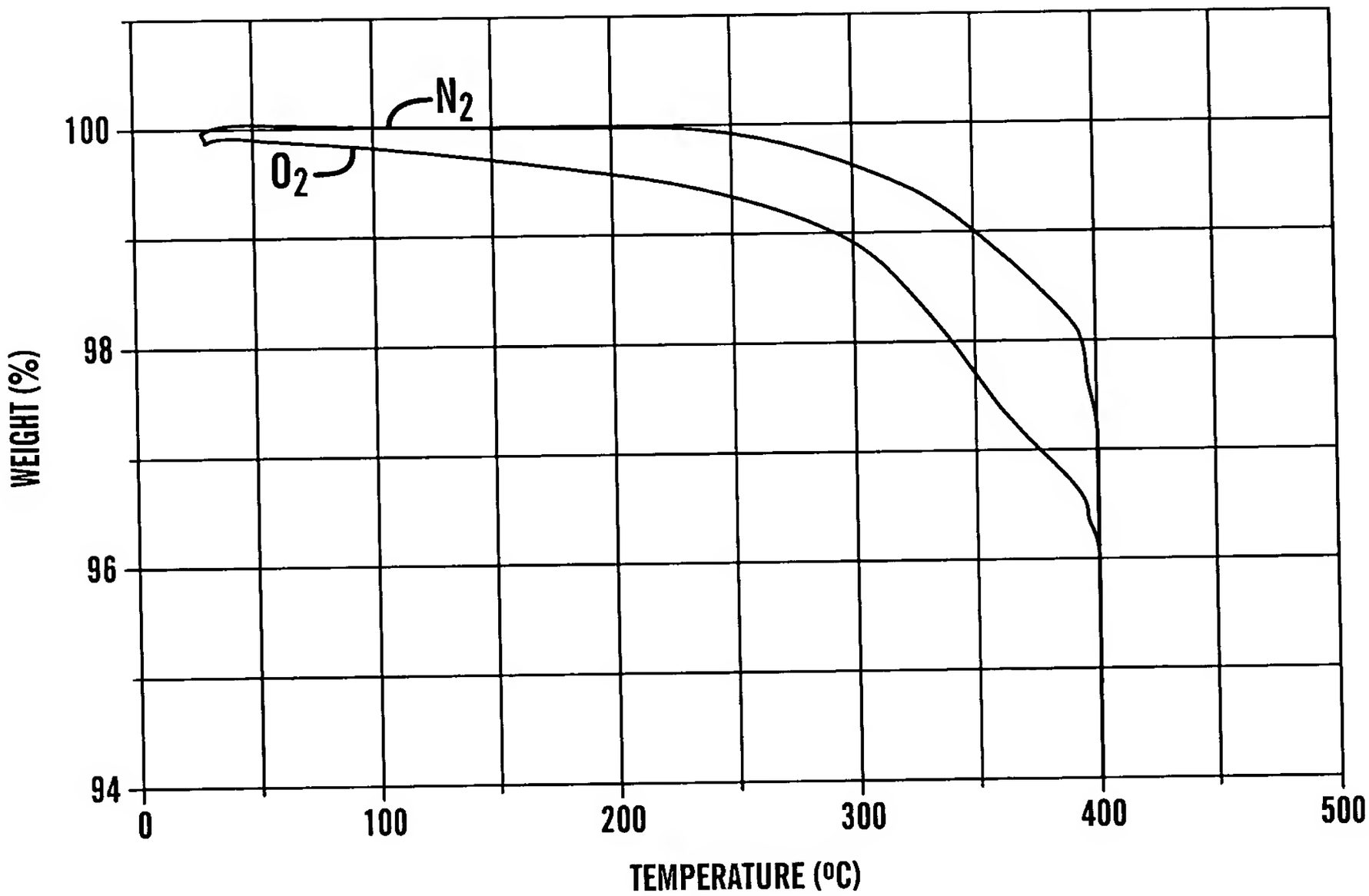

FIG. 2A

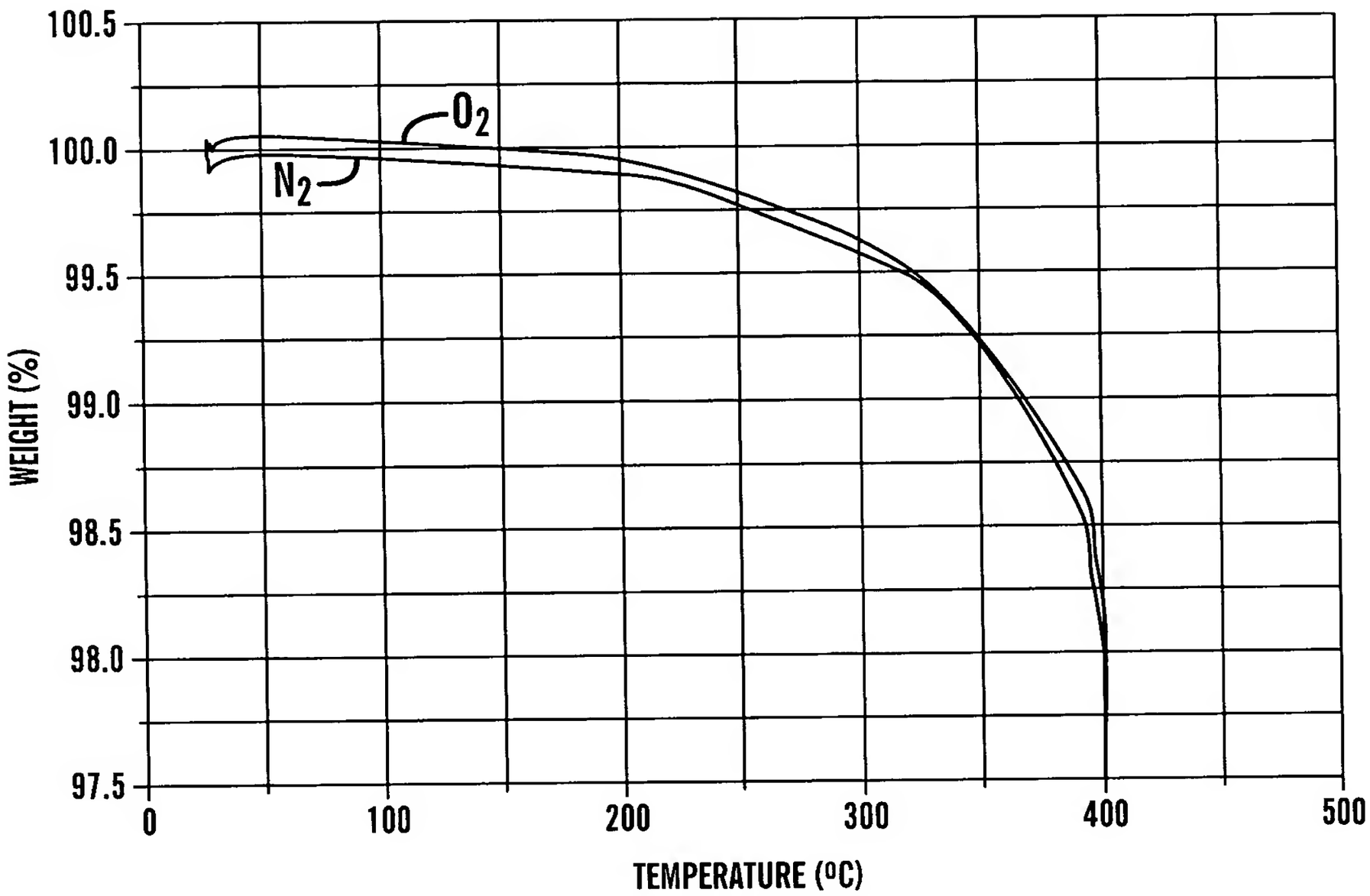
100.5
100.0
99.5
99.0
98.5
98.0
97.5
WEIGHT (%)
O_2
N_2
0
100
200
300
400
500
TEMPERATURE (°C)

FIG. 2B

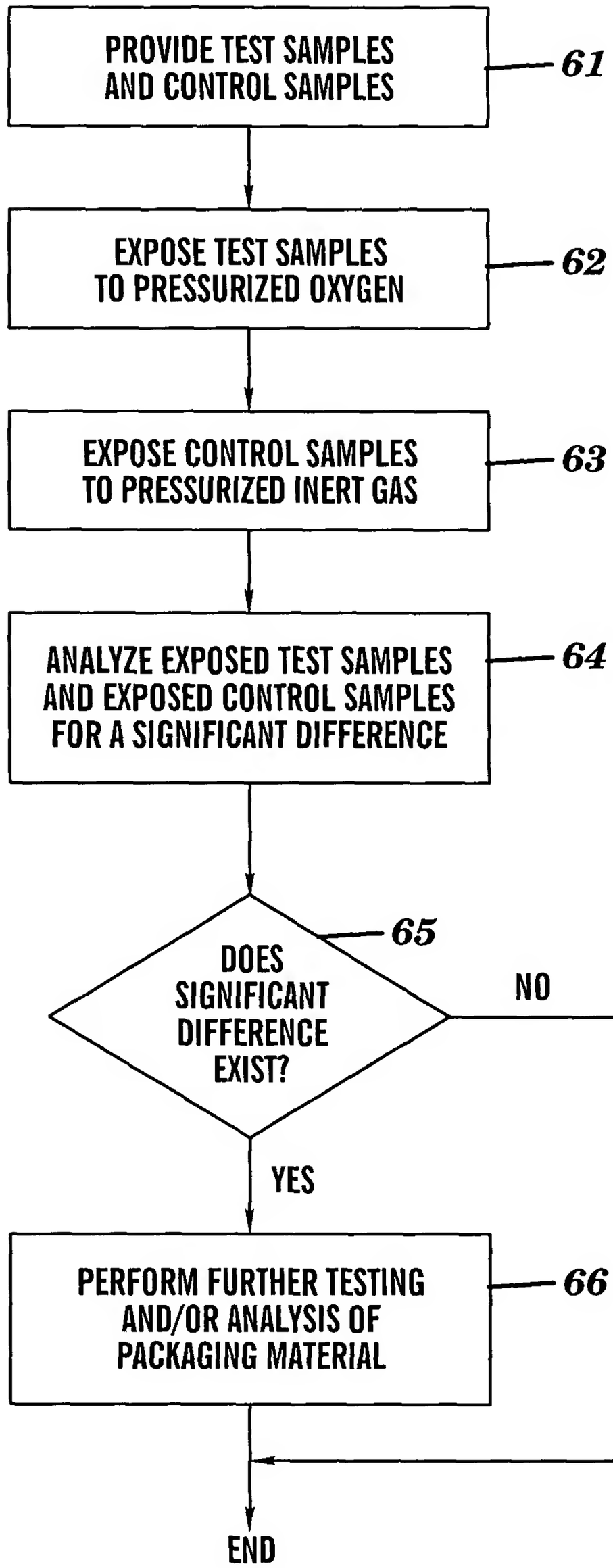
PROVIDE TEST SAMPLES AND CONTROL SAMPLES
61
EXPOSE TEST SAMPLES TO PRESSURIZED OXYGEN
62
EXPOSE CONTROL SAMPLES TO PRESSURIZED INERT GAS
63
ANALYZE EXPOSED TEST SAMPLES AND EXPOSED CONTROL SAMPLES FOR A SIGNIFICANT DIFFERENCE
64
DOES SIGNIFICANT DIFFERENCE EXIST?
65
NO
YES
PERFORM FURTHER TESTING AND/OR ANALYSIS OF PACKAGING MATERIAL
66
END

FIG. 3

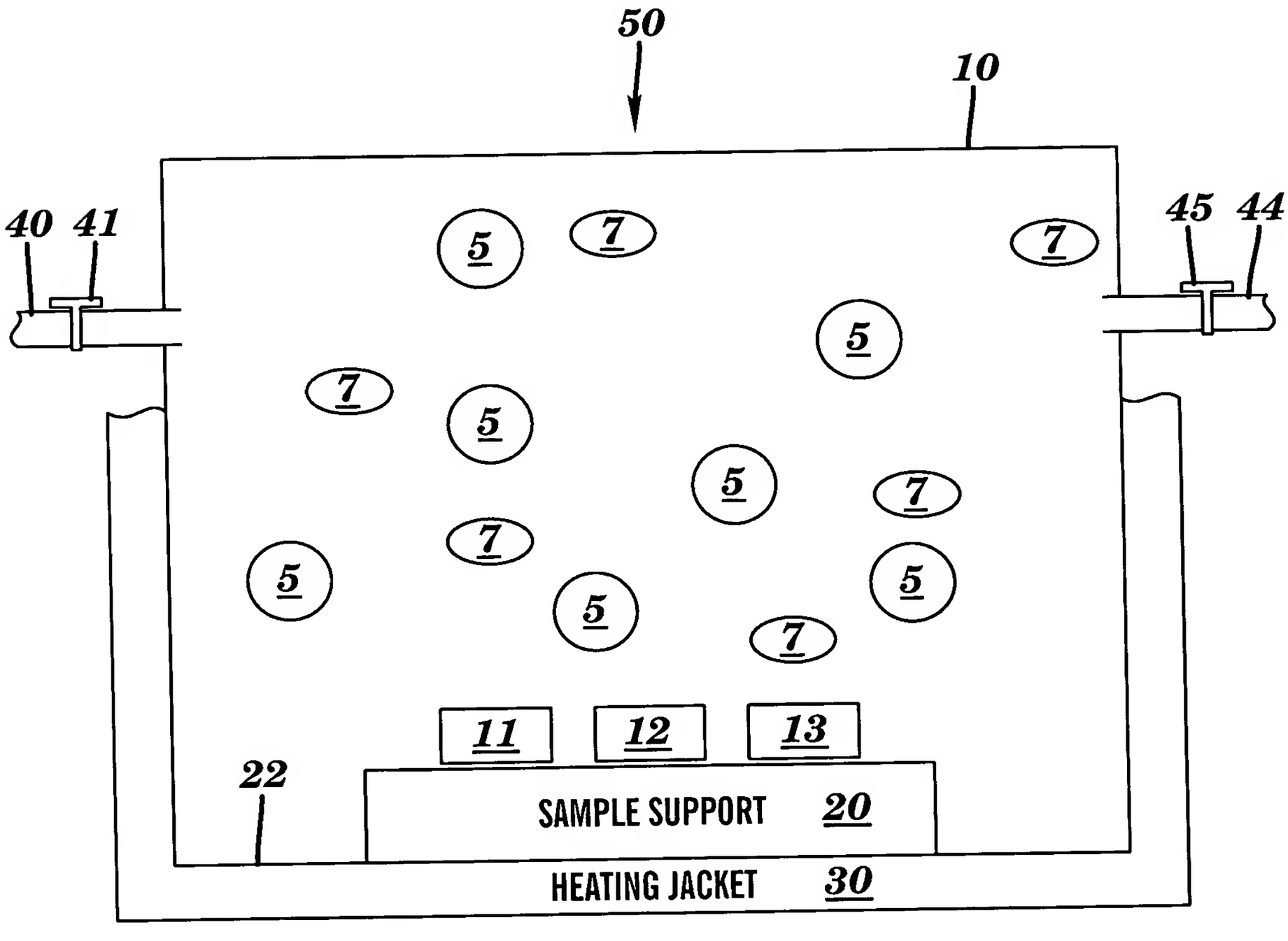
50
10
40
41
45
44
5
7
11
12
13
22
SAMPLE SUPPORT 20
HEATING JACKET 30

FIG. 4